

REMARKS**INTRODUCTION:**

In accordance with the foregoing, claim 7 has been amended. No new matter is being presented, and approval and entry are respectfully requested.

Claims 1-7 are pending and under consideration. Reconsideration is respectfully requested.

CHANGES TO THE SPECIFICATION:

The specification has been reviewed in response to this Office Action. Changes have been made to the specification only to place it in preferred and better U.S. form for issuance and to resolve the Examiner's objections raised in the Office Action. No new matter has been added.

The references to TUFTONE in Examples 1-4 on pages 14-15 of the specification refer to TUFTONE C-PEs #188, KAO CO., Japan. Thus, the TUFTONE utilized is now submitted to be clear.

REJECTION UNDER 35 U.S.C. §103:

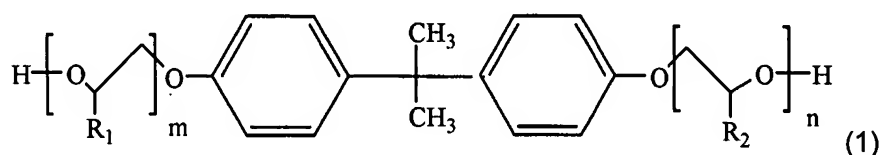
In the Office Action, at page 2-3, numbered paragraph 3, claims 1-6 were rejected under 35 U.S.C. §103(a) as being unpatentable over Shirai et al. (USPN 6,723,822; hereafter, Shirai) in view of Van Diepen et al. (USPN 6,350,822; hereafter, Diepen). The reasons for the rejection are set forth in the Office Action and therefore not repeated. The rejection is traversed and reconsideration is requested.

As noted by the Examiner, Shirai fails to teach the use of polyfunctional acid anhydrides or the improved rheology of the use of trimellitic anhydrides. Although Van Diepen discloses a modified polyester comprising a polyester, a polyfunctional acid anhydride and a polyhydric alcohol or precursor thereto, it is respectfully submitted that Van Diepen discloses a crystalline polyester made with a polyfunctional acid anhydride having at least three acid groups or acid group residues and a polyhydric alcohol or precursor thereto, wherein said polyhydric alcohol has at least three hydroxy groups (see claim 1 of Van Diepen, reproduced below for the convenience of the Examiner):

1. A polymer blend comprising a polyester, a polyfunctional acid anhydride having at least three acid groups or acid group residues, and a polyhydric alcohol or precursor thereto, wherein said polyhydric alcohol has at least three hydroxy groups, and wherein said polyfunctional acid anhydride and said polyhydric alcohol or precursor thereto are present in a molar ratio in the range of 2:1 to (10 x C):1, where C is the number of moles

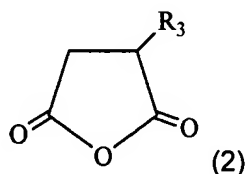
of hydroxy group per mole of polyhydric alcohol. (emphasis added)

In contrast, the present claimed invention recites utilizing a crystalline polyester comprising **diol** (i.e., a polyhydric alcohol having **two** hydroxy groups (see claim 1), carboxylic anhydride, terephthalic acid, trimellitic anhydride, a charge control agent and a pigment. Hence, it is respectfully submitted that Van Diepen does not teach or suggest a toner comprising a binder resin comprising a main binder resin and 10 to 100 parts by weight of crystalline polyester, based on 100 parts by weight of the main binder resin, the crystalline polyester comprising **diol** represented by Formula 1 below:



wherein, R_1 and R_2 are hydrogen or methyl, and n and m are 1 or 2;

2 to 25 moles of carboxylic anhydride represented by Formula 2 below, based on 100 moles of the diol of Formula 1:

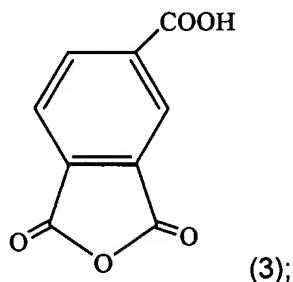


wherein, R_3 is an alkyl group of C_{1-12} ;

20 to 50 moles of terephthalic acid, based on 100 moles of the diol of Formula 1;

and

2 to 15 moles of trimellitic anhydride represented by Formula 3 below, based on 100 moles of the diol of Formula 1:



a charge control agent; and

a pigment,

as is recited in claim 1 of the present invention.

It is known that organic compounds are compounds in which elements mainly attached to carbon structures combine, and due to various combinations, a large number of compounds having various characteristics are formed. Even if two compounds differ only by one carbon, the characteristics may be very different. As for isomers, even though the molecular formula is the same, the characteristics of the isomers may be different.

Hence, it is respectfully submitted that the polymer blend formed by Van Diepen using a polyhydric alcohol having at least three hydroxy groups is different chemically from the crystalline polyester of the present invention, which utilizes a diol, and Van Diepen teaches away from the present invention by requiring a greater number of hydroxy groups on the polyhydric alcohol. Thus, even if combined, Shirai and Van Diepen would not teach the present invention.

Hence, independent claim 1 of the present invention is submitted to be patentable under 35 U.S.C. §103(a) over Shirai et al. (USPN 6,723,822) and/or Van Diepen et al. (USPN 6,350,822), alone or in combination. Since claims 2-6 depend from claim 1, claims 2-6 of the present invention are submitted to be patentable under 35 U.S.C. §103(a) over Shirai et al. (USPN 6,723,822) and/or Van Diepen et al. (USPN 6,350,822), alone or in combination, for at least the reasons that claim 1 is submitted to be patentable under 35 U.S.C. §103(a) over Shirai et al. (USPN 6,723,822) and/or Van Diepen et al. (USPN 6,350,822), alone or in combination.

ALLOWABLE CLAIM:

In the Office Action, at page 3, numbered paragraph 4, claim 7 was objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 7 has been rewritten in independent form, including all of the limitations of the base claim (there were no intervening claims). Thus, claim 7 is now submitted to be in allowable form.

CONCLUSION:

In accordance with the foregoing, it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot, and further, that all pending claims patentably distinguish over the prior art. Thus, there being no further outstanding objections or rejections, the application is submitted as being in condition for allowance which action is earnestly solicited.

If the Examiner has any remaining issues to be addressed, it is believed that prosecution can be expedited by the Examiner contacting the undersigned attorney for a telephone interview to discuss resolution of such issues.

If there are any underpayments or overpayments of fees associated with the filing of this Amendment, please charge and/or credit the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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